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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,315	07/26/2001	Hideo Kobayashi	110207	4956

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EXAMINER

NGUYEN, KEVIN M

ART UNIT	PAPER NUMBER
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2674

12

DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/912,315

Applicant(s)

KOBAYASHI ET AL.

Examiner

Kevin M. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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### DETAILED ACTION

1. According to interview summary sent on 04/14/2004, the finality of the rejection of the last Office action filed on 02/19/2004 is withdrawn.

The remarks filed on 12/03/2003 have been fully considered but they are not persuasive. New claims 16-18 are entered. However, the rejections of claims 1-18 are maintained.

### *Specification*

2. The abstract of the disclosure is objected to because the direction of applied voltage recited in lines 8 and 9. The unclear language "voltage direction" and "a direction of an applied voltage" are indefinite and require deleting a word "direction" or change --polarity--

Correction is required. See MPEP § 608.01(b).

3. The disclosure is objected to as being so incomprehensible as to preclude a reasonable search of the prior art by the examiner. For example, the following items are not understood:

In the specification, at page 4, line 8, line 11, line 20, line 24; at page 5, line 4; at page 7, line 11, line 25; at page 8, lines 1-2; at page 9, line 19-21; at page 10, lines 11-12; at page 14, line 9, line 14; at page 15, line 25; at page 29, line 9; at page 30, line 16 recited the unclear languages "voltage direction" or "the positive direction/the negative direction" or "a direction of an applied voltage" are indefinite and require deleting a word "direction" or change --polarity--

Applicant is required to submit an amendment which clarifies the disclosure so that the examiner may make a proper comparison of the invention with the prior art.

Applicant should be careful not to introduce any new matter into the disclosure (i.e., matter which is not supported by the disclosure as originally filed).

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim above, it is not clear what the Applicant means

"a direction of an applied voltage" recited in lines 3-4 of claims 1, 3, 4,

"a direction of an applied voltage" recited in lines 2-3 of claim 2,

"a direction of an applied voltage" recited in lines 11-12 of claim 3,

"a direction of an applied voltage" recited in line 9 of claim 4,

"a direction of an applied voltage" recited in line 4 of claim 12,

"a direction of an applied voltage" recited in lines 4-5 of claim 14,

"the applied voltage direction" recited in line 7 of claim 1.

Voltage is a scalar and therefore has no spatial direction. Voltage is synonymous with potential difference only in an electrostatic field. This definition recites in the IEEE standard Dictionary of Electrical and Electronics Terms, 6<sup>th</sup> Edition at page 1185.

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The unclear languages "voltage direction" and "a direction of an applied voltage" are indefinite and require deleting a word "direction" or change --polarity--

The language "direction" makes the limitations contain various inconsistencies and/or ambiguities so that the Examiner is unable to understand how the voltage has spatial direction.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 16 is rejected under 35 U.S.C. 102(b) as being anticipated by Kohashi (previously cited, US 3,575,634).

As to claim 16, Kohashi teaches an apparatus associated with a method, the apparatus comprising:

a display element 100 (fig. 1), an optical switching element (200, 300) comprising a capacitor  $C_B$ , a variable resistor  $R_p$ , fig. 1) comprising a ratio of the resistance component (a variable resistor  $R_p$ , fig. 1), the applied voltage polarity (an AC power supply  $V_A$  and variable voltage  $V_B$ , fig. 1, col. 6, lines 1-7), and an electrical charge amount of the display element (a charge of a capacitor  $C_E$  of the display 100, fig. 1).

The ordinary EL fluorescent material such as ZnS, the specific resistance of the dielectric medium for effective control of the waveform is of the order of  $10^7$  to  $10^{10}$   $\Omega$ -cm. Further essential requirements are; that the dielectric medium is not deteriorated

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by the high temperature originated from ohmic loss in the high sensitivity operation; that the voltage vs. current characteristics is as ohmic as possible (col. 7, lines 12-23).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohashi in view of Oba (previously cited, US 6,441,828).

As to claims 17 and 18, Kohashi teaches an apparatus associated with a method, the apparatus comprising:

a display element 100 (fig. 1), an optical switching element (200, 300) comprising a capacitor  $C_B$ , a variable resistor  $R_p$ , fig. 1) comprising a ratio of the resistance component (a variable resistor  $R_p$ , fig. 1), the applied voltage polarity (an AC power supply  $V_A$  and variable voltage  $V_B$ , fig. 1, col. 6, lines 1-7), and an electrical charge amount of the display element (a charge of a capacitor  $C_E$  of the display 100, fig. 1).

Accordingly, Kohashi teaches all of the claimed limitations except that the voltage applied to the display element is greater than and smaller than a threshold voltage of the display element to turns on and off depending on the light detection output from the light sensor.

However, Oba teaches the display brightness controller 69, comprising a variable resistor that changes the amount of the voltage depending on the light detection output

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from the light sensor 55 so that the display on the display panel 52 is turned ON or OFF depending upon the light detection output from the light sensor 55. That is, when the light sensor 55 selects an amount of light around the image display apparatus 50, which is larger or smaller than predetermined (a threshold voltage) (fig. 15, col. 10, line 66 through col. 11, line 5).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kohashi's display element including turn on and off, in view of the teaching in the Oba's reference because this would provide the power consumed by the image display apparatus can be saved. An energy saving is attained as taught by Oba (col. 10, lines 60-62).

### ***Response to Arguments***

8. Applicant's arguments filed 12/03/2003 have been fully considered but they are not persuasive.

9. In response to applicant's argument at pages 7-9. These arguments are persuasive because of the 35 U.S.C. 112, 2<sup>nd</sup> paragraph rejections made above.

For these reasons, the rejections have been maintained.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kevin M. Nguyen** whose telephone number is **703-305-6209**. The examiner can normally be reached on MON-THU from 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reached on **703-305-4709**.

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**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kevin M. Nguyen  
Patent Examiner  
Art Unit 2674

KN  
April 17, 2004

  
**XIAO WU**  
**PRIMARY EXAMINER**